



South Carolina Department of Health
and Environmental Control

Regulation 61-107.4

SWM: Yard Trash and Land-Clearing Debris; and Compost

Effective Date: April 23, 1993

**Bureau of Land & Waste Management
Division of Mining & Solid Waste Management
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Columbia, SC 29201**

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61
Statutory Authority: 1976 Code
Sections 44-96-190 and 44-96-380 (1991)

R.61-107.4. Solid Waste Management: Yard Trash and Land-Clearing Debris; and Compost.

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A. Applicability. This regulation is to ensure the proper disposal and management of yard trash and land-clearing debris, and to encourage and regulate the production and use of compost made from yard trash and land-clearing debris.

B. Definitions.

1. "Backyard Composting" means the on-site composting of yard waste from residential, commercial, or industrial property by the owner or tenant for non-revenue generating use when all materials are generated and composted on-site.

2. "Biodegradable" means capable of being decomposed by natural biological processes.

3. "Buffer" means the space between two (2) entities reserved for non-activity.

4. "Compost" means the humus-like end product of the process of composting waste.

5. "Composting" means the process of making compost.

6. "Composting facility" means any facility used to provide aerobic, thermophilic decomposition of the solid organic constituents of solid waste to produce a stable, humus-like material.

7. "Composting Pad" means a surface, whether soil or manufactured, where the process of composting takes place, and where raw and finished materials are stored.

8. "Degradable" with respect to any material, means that the material, after being discarded, is capable of decomposing to components other than heavy metals or other toxic substances after exposure to bacteria, light, or outdoor elements.

9. "Department" means the South Carolina Department of Health and Environmental Control.

10. "Hygienically" means promoting health; sanitary.

11. "Land-clearing debris" means solid waste which is generated solely from land-clearing activities, but does not include solid waste from agricultural or silvicultural operations.

12. "Leachate" means the liquid that has percolated through or drained from solid waste or other man-emplaced materials and that contains soluble, partially soluble, or miscible components removed from such waste.

13. "Mesophilic stage" means a biological stage in the composting process characterized by active microorganisms which favor a moderate temperature, range of 20° to 45° C (68° to 113° F). It occurs later in a composting process after the thermophilic stage and is associated with a moderate rate of decomposition.

14. "Mulch" means wood chips, leaves, straw, etc., spread on the ground around plants to prevent evaporation of water from soil, freezing of roots, etc.

15. "Municipal solid waste landfill" means any sanitary landfill or landfill unit, publicly or privately owned, that receives household waste. The landfill may also receive other types of solid waste, such as commercial waste, nonhazardous sludge, and industrial solid waste.

16. "Owner/operator" means the person who owns the land on which a solid waste management facility is located or the person who is responsible for the overall operation of the facility, or both.

17. "Person" means an individual, corporation, company, association, partnership, unit of local government, state agency, federal agency, or other legal entity.

18. "Resource recovery facility" means a combination of structures, machinery, or devices utilized to separate, process, modify, convert, treat, or prepare collected solid waste so that component materials or substances or recoverable resources may be used as a raw material or energy source.

19. "Runoff" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

20. "Silviculture Waste" means waste materials produced from the care and cultivation of forest trees, including bark and woodchips.

21. "Solid Waste" means any garbage, refuse, or sludge from a waste treatment facility, water supply plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. This term does not include solid or dissolved material in domestic sewage, recovered materials, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to NPDES permits under the Federal Water Pollution Control Act, as amended, or the Pollution Control Act of South Carolina, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1964, as amended. Also excluded from this definition are application of fertilizer and animal manure during normal agricultural operations or refuse as defined and regulated pursuant to the South Carolina Mining Act, including processed mineral waste, which will not have a significant adverse impact on the environment.

22. "Solid waste management facility" means any solid waste disposal area, volume reduction plant, transfer station, or other facility, the purpose of which is the storage, collection, transportation, treatment, utilization, processing, recycling, or disposal, or any combination thereof, of solid waste. The term does not include a recovered materials processing facility or facilities which use or ship recovered materials, except that portion of the facilities which is managing solid waste.

23. "Thermophilic stage" means a biological stage in the composting process characterized by active microorganisms which favor a high temperature range of 45° to 75° C (113° to 167° F). It occurs early in a composting process before the mesophilic stage and is associated with a high rate of decomposition.

24. "Untreated woodwaste" means wood that has not undergone any type of treatment for preservation, etc.

25. "Vector" means an animal or insect that may transmit disease producing organisms from one host to another.

26. "Windrow" means an elongated compost pile.

27. "Yard trash" means solid waste consisting solely of vegetative matter resulting from landscaping maintenance.

C. General Provisions.

1. Effective May 27, 1993, disposal of yard trash and land-clearing debris in a municipal solid waste landfill or a resource recovery facility shall be prohibited, unless the landfill provides and maintains a separate yard trash and land-clearing debris composting area and the yard trash and land-clearing debris have been separated from other municipal solid waste.

2. Prior to the construction, operation, expansion or modification of a composting facility using yard trash and land-clearing debris and/or a wood chipping facility that chips untreated wood waste, the facility shall be registered by the Department.

3. This regulation does not apply to the following activities provided no public nuisance or any condition adversely affecting the environment or public health is created, and the activity complies with all other State and local laws, ordinances, rules, regulations, and orders:

a. Backyard composting where the compost is produced from materials grown on site;

b. Farming operations where the compost is produced from materials grown on the owner's land;

c. Mobile chipping/shredding equipment which chips/shreds woodwaste, e.g., the type used by utilities to clear rights-of-way or manage storm debris, and which may spread the woodwaste on rights-of-way after it has been chipped or shredded. Chipped/shredded woodwaste or storm debris, temporarily stockpiled in lieu of spreading after the effective date of this regulation, shall be removed within ninety (90) days in order to be exempt from the requirements of this regulation. The Department shall be notified in writing within ten (10) working days of the establishment of these stockpiles. In addition, any active piles as of the effective date of this regulation shall be removed within one hundred eighty (180) days of the effective date of this regulation. Inactive piles as of the effective date of this regulation are exempt from the requirements of this regulation;

d. Temporary chipping/shredding and storage of woodwaste for distribution to the public, e.g., Grinding of the Greens and other similar programs, as approved by the Department;

e. Shredding or chipping of untreated wooden pallets or other wooden packaging utilized by industry in its own operations that have not been in direct contact with hazardous constituents, e.g., petroleum products, pesticides, lead-based paint, etc.; and,

f. Composting at industrial sites where the compost is produced from materials grown on properties under the same ownership or control within one fourth ($\frac{1}{4}$) mile of each other, unless otherwise approved by the Department and where the compost product is used for noncommercial purposes.

4. All State agencies, all political subdivisions using State funds to procure items, and all persons contracting with such agency or political subdivision where such persons procure items with State funds shall procure composted materials and products where practicable, subject to the provisions of Section 44-96-140(D) of the South Carolina Solid Waste Policy and Management Act of 1991.

5. Compost shall not be used in any manner that will endanger public health and welfare, and the environment, or would violate the provisions of this regulation.

D. Registration Requirements for Composting and Wood Chipping Facilities. Prior to the construction, expansion, or modification of a composting and/or wood chipping facility a report shall be submitted to and be approved by the Department. This report shall contain the following information:

1. Name and telephone number of the owner of the facility;
2. Name and telephone number of the person responsible for operation of the facility;
3. Procedure for prevention of fires;
4. Procedure for control of vectors;
5. Procedure for odor control;
6. Procedure for control and inspection of incoming waste;
7. Method for measuring incoming waste;
8. Procedure for control of storm water drainage;
9. Anticipated type, source, and composition of waste to be received; and,
10. Outline of a financial assurance mechanism for closure and post-closure procedures. Financial assurance requirements do not apply to local governments or regions comprised of local governments unless and until such time as federal regulations require such local governments and regions to demonstrate financial responsibility for such facilities.

E. Design Criteria for Composting and Wood Chipping Facilities.

1. Facilities located over closed-out landfills shall have sufficient structural support for the operation including total waste received, material processed, compost stored, equipment, and structures to be built on site.
2. The design of the facility shall follow acceptable management practices for composting methods which result in the aerobic, thermophilic decomposition of the solid organic constituents of solid waste to produce a stable, hygienically safe humus-like material.

3. The site for the facility shall meet the following standards:

- a. A site located in a flood plain shall not restrict the flow of the 100-year flood;
- b. A site shall be maintained and operated in a manner which protects the established water quality standards of the surface waters and ground waters;
- c. A 50-foot minimum buffer shall be required between all property lines and compost pad or storage area;
- d. A 200-foot minimum buffer shall be required between compost pad or storage area and residences or dwellings;
- e. A 200-foot minimum buffer shall be required between streams and rivers and compost pad or storage area;
- f. A 100-foot minimum buffer shall be required between all drinking water wells and the active composting area;
- g. The bottom elevation of the compost pad and storage areas shall be a minimum of two (2) feet above seasonal high water table as it exists prior to construction of the disposal area. The seasonal high water table shall be determined based on interpretation of the data from a representative number of geotechnical type borings, unless alternate information can be provided to the Department to ensure that a two (2) foot separation from groundwater will be maintained throughout the life of the disposal, i.e. compost, area;
- h. A site shall comply with all of the requirements of the local zoning ordinance;
- i. Access to the site shall be controlled through the use of fences, gates, berms, natural barriers, or other means;
- j. A site shall not be located within any wetlands as delineated and defined specifically as wetlands according to the methodology accepted by the U. S. Army Corps of Engineers and the U. S. Environmental Protection Agency;
- k. Alternative buffers for a covered facility shall be approved by the Department on a case by case basis; and,
- l. Access to fire equipment and fire fighting services shall be provided.

F. Operation Criteria. The operational requirements of this section apply to all facilities that compost yard trash and land-clearing debris and/or chip untreated wood waste.

1. The facility shall be operated in a manner to control vectors.
2. Only yard trash and land clearing debris waste shall be accepted at the facility.
3. If solid waste other than yard trash or land clearing debris is left at the facility, it shall be separated and stored in a manner that prevents vector problems and shall be properly disposed within seven (7) days of its

receipt.

4. Odors shall be controlled and minimized.

5. Dust shall be controlled and minimized.

6. Waste with a low carbon to nitrogen ratio, e.g., grass clippings, etc. shall be incorporated into piles within forty-eight (48) hours of on-site arrival.

7. Drainage Control Requirements:

a. Storm water shall be diverted from the operational area;

b. Windrows shall be constructed parallel to topographical slopes; and,

c. The site shall be graded to prevent ponding of water in the active composting areas.

8. Surface Water Protection Requirements: An NPDES permit may be required prior to discharge of any storm waters to surface waters.

9. Access and Security Requirements:

a. The site shall be secured by means of gates, chains, berms, fences, or other security measures, to prevent unauthorized entry; and,

b. An all-weather road to the site shall be maintained in good condition;

10. Sign Requirements:

a. Signs shall be posted in conspicuous places which identify the owner, operator, or a contact person and telephone number in case of emergency, and the hours during which the site is open for public use;

b. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions; and,

c. Signs shall be posted stating that only yard trash and land-clearing debris can be accepted at the site (except in the event that the site is permitted by the Department for solid waste disposal in addition to being permitted for yard trash and land-clearing debris composting).

11. Safety Requirements:

a. Open burning of solid waste at the composting facility shall be prohibited;

b. Equipment shall be provided to control accidental fires and/or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed; and,

c. Space shall be provided between piles to allow access for vehicles, including fire equipment.

12. Monitoring and Reporting Requirements:

a. Should the Department confirm environmental and/or health problems associated with the facility, monitoring (including groundwater, surface water, waste components, soil, and/or plant tissue analyses) may be required by the Department to ensure protection of the environment; and,

b. An annual report shall be submitted to the Department and to the respective county or region in which the facility is located by October 15th, which includes the following information:

(1) Sources, type, and an estimate of the total quantity of waste received at the facility for the previous year;

(2) The amount of compost produced;

(3) The amount of compost removed from the facility;

(4) The amount of compost disposed in a landfill; and,

(5) Any changes in names of responsible parties, addresses, telephone numbers, etc., if applicable.

G. Closure and Post-closure Procedures.

1. Financial Assurance. All composting and wood chipping facilities shall fund a financial assurance mechanism for completing final closure prior to accepting yard waste. A final closure cost estimate, based on third party costs to complete closure by disposing of the maximum quantity of material at a facility shall be performed annually and adjusted annually, if necessary. The financial responsibility requirements shall not apply to any local government or region comprised of local governments which owns and operates a municipal solid waste management facility unless and until such time as federal regulations require such local governments and regions to demonstrate financial responsibility for such facilities; and,

2. Closure Procedures. All composting and wood chipping facilities shall be required to close the facility in accordance with the following procedures:

a. At least sixty (60) days prior to closure, provide written notice of intent to close and a proposed closure date to the Department;

b. Upon closing, immediately post closure signs at the facility;

c. Complete removal of compost material and cleaning of the waste handling areas within ten (10) days of closure and request Department inspection and approval of closure; and,

d. Within sixty (60) days of closure, grade land to promote positive drainage and seed with native grasses to prevent erosion.